TRANSLATION

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference **155394.2/Le**	**FOR FURTHER ACTION**	See Form PCT/IPEA/416
International application No. **PCT/EP2004/053384**	International filing date *(day/month/year)* **09.12.2004**	Priority date *(day/month/year)* **09.12.2003**
International Patent Classification (IPC) or national classification and IPC **G06F17/30**		

Applicant **SWISS REINSURANCE COMPANY**

1.	This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.
2.	This REPORT consists of a total of **11** sheets, including this cover sheet.
3.	This report is also accompanied by ANNEXES, comprising:

a. ☒ *(sent to the applicant and to the International Bureau)* a total of **10** sheets, as follows:

☒ sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).

☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.

b. ☐ *(sent to the International Bureau only)* a total of (indicate type and number of electronic carrier(s))

_____ , containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).

4.	This report contains indications relating to the following items:

☒ Box No. I   Basis of the report

☐ Box No. II   Priority

☐ Box No. III   Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

☐ Box No. IV   Lack of unity of invention

☒ Box No. V   Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

☐ Box No. VI   Certain documents cited

☐ Box No. VII   Certain defects in the international application

☐ Box No. VIII   Certain observations on the international application

Date of submission of the demand	Date of completion of this report
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

Form PCT/IPEA/409 (cover sheet) (January 2004)

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY	International application No.
	PCT/EP2004/053384

Box No. I	Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

  ☐ This report is based on translations from the original language into the following language _____ , which is the language of a translation furnished for the purposes of:

    ☐ international search (Rule 12.3 and 23.1(b))

    ☐ publication of the international application (Rule 12.4)

    ☐ international preliminary examination (Rule 55.2 and/or 55.3)

2. With regard to the **elements** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

  ☐ the international application as originally filed/furnished

  ☒ the description:

    pages ___2, 4, 10, 13–21_____ as originally filed/furnished

    pages* __1, 3, 5–9, 11, 12_____ received by this Authority on __09.07.2005 with letter of 06.07.2005__

    pages* _____ received by this Authority on _____

  ☒ the claims:

    nos. __1–12, 15–24 – pages 22–24, 26–28_____ as originally filed/furnished

    nos.* _____ as amended (together with any statement) under Article 19

    nos.* __13, 14 – page 25_____ received by this Authority on __09.07.2005 with letter of 06.07.2005__

    nos.* _____ received by this Authority on _____

  ☒ the drawings:

    sheets __1/13–13/13_____ as originally filed/furnished

    sheets* _____ received by this Authority on _____

    sheets* _____ received by this Authority on _____

  ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

    ☐ the description, pages _____

    ☐ the claims, nos. _____

    ☐ the drawings, sheets/figs _____

    ☐ the sequence listing *(specify)*: _____

    ☐ any table(s) related to sequence listing *(specify)*: _____

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

    ☐ the description, pages _____

    ☐ the claims, nos. _____

    ☐ the drawings, sheets/figs _____

    ☐ the sequence listing *(specify)*: _____

    ☐ any table(s) related to sequence listing *(specify)*: _____

* *If item 4 applies, some or all of those sheets may be marked "superseded."*

Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1.   Statement

Novelty (N)	Claims	3, 7-11, 14, 18-22	YES
	Claims	1, 2, 4-6, 12, 13, 15-17, 23, 24	NO
Inventive step (IS)	Claims		YES
	Claims	1-24	NO
Industrial applicability (IA)	Claims	1-24	YES
	Claims		NO

2.   Citations and explanations (Rule 70.7)

Reference is made to the following documents:

D1:   US 2003/195872 A1 (SENN PAUL) 16 October 2003 (2003-10-16)

D2:   DAS S R ET AL: "Yahoo! for Amazon: Sentiment Parsing from Small Talk on the Web", EFA 2001 BARCELONA MEETINGS, [Online] 5 August 2001 (2001-08-05), pages 1-45, XP002324570, found on the Internet at URL: http://papers.ssm.com/sol3/papers.cfm ?abstract_id=276189> [found on 2005-04-13].

1.   The present application fails to satisfy the requirements of PCT Article 33(1) because the subject matter of claims 1-24 lacks novelty (PCT Article 33(2)) or does not involve an inventive step (PCT Article 33(3)).

1.1   Document D1 discloses (the references in parentheses are to said document):

a method for the aggregation and analysis of multimedia data stored in a decentralised manner,

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one or more linkable search terms being saved in a data memory, a processor accessing a network node via a network, said network node being linked to source databases, and data from said source databases being selected on the basis of the search terms (conventional method used in Internet search engines, see for example D1, paragraphs [0017] and [0018]; figure 1), characterised in that:

a.   at least one evaluation parameter is stored in a data memory, said parameter being associated with a search term and/or a combination of linked search terms (paragraph [0007], lines 4-5: search term "Microsoft" linked with "at least one word with positive emotional connotations"; paragraph [0088]: "combination" of "words retrieved in step 2" and "user-chosen search keys". In "step 2" (paragraph [0087]) evaluation parameters with particular emotional connotations are selected (see paragraph [0072]);

b.   at least one of the source data bases is stored in the data memory, said source data base being associated with a search term and/or a combination of search terms (in paragraph [0086] a user-defined parameter "where to perform the search (Internet, intranet, etc.)" is mentioned in conjunction with the input of the search terms, thereby restricting the search to specified web servers (see

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paragraph [0088], first two lines).
According to paragraph [0019] (see four lines
from the end), the search in the method as
per D1 is similar to that of conventional
search engines such as AltaVista, in which
the possibility of restricting the search to
specific web servers has, of course, been a
conventional feature for many years (with
regard to the restriction of the search to
specific Internet discussion fora, see also
D2, paragraph 5, second paragraph);

   c.   by means of a filter module ("Content Retrieval
Object", paragraphs [0085] to [0089]), the
processor accesses the source databases of the
network node and, for each evaluation
parameter, in conjunction with the associated
search terms (paragraph [0079]) and the
associated source databases (paragraph [0081])
and/or a time-related evaluation of the
documents (paragraph [0080]: the optional
feature "time-related evaluation" is extremely
imprecise and, moreover, is not more clearly
defined in the description; "documents" are
not previously mentioned in this claim), an
evaluation of identified data sets is
generated (paragraphs [0088], [0089]); and

   d.   by means of a parameterisation module ("Content
Analysis Engine", paragraphs [0109] ff.)
based on the evaluation list for each

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valuation parameter, a variable opinion variable is, at least in part dynamically, generated (paragraph [0226], "composite rating"), said variable opinion variable reflecting the opinion swings of network users over time. (This cannot be regarded as a technical feature, being an effect to be achieved by means of the invention (see paragraph 2.1)). However, the objective of the method described in D1 is similar and relates, in particular, to opinion swings over time (see paragraph [0226], last six lines).

In consequence, the subject matter of **claim 1** cannot be considered novel.

1.2 The arguments put forward in the context of the international preliminary examination cannot refute the arguments in relation to novelty set out in point 1.1:

It was argued that, according to claim 1, only a global opinion variable is generated whereas in D1 only a "composite rating" is produced for each web page found. However, this is neither applicable nor correct. According to D1 (paragraphs [0028] and [0035]), the "composite ratings" are substituted for "ratable units", which "ratable units" can be recursively defined; for example, a

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Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

sentence can consist of multiple grammatical units
and a paragraph can consist of multiple sentences
(see D1, paragraph [0117], lines 14-22). In
particular, a "search result object" constitutes a
"ratable unit" from the web pages found in the
Internet search (see D1, paragraph [0117],
lines 25-26; paragraphs [0088] and [0089]). In D1
(paragraph [0117], lines 26-34; paragraphs
[0197] ff.), it is shown in general terms how the
rating of a "ratable unit" can be recursively
obtained from the rating of the components of said
unit, for example by obtaining mean or median
values. According to the above, it is implicitly
evident that this relates also to the process of
rating the "search result object" from the ratings
of the web pages found in the Internet search. In
D1 (paragraph [0226]), a "SearchResult object
...containing the composite rating for the search"
is given as the final product of the algorithm.
Therefrom, and from the description in paragraph
[0226] (lines 14-23) of the comparison between the
"composite ratings" for Internet searches with
"Sun" and "Microsoft" as the search arguments,
it is clear that the system according to D1
generates a single numerical value as the
"composite rating" for each Internet search,
said rating corresponding to the "opinion
variable" according to claim 1.

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It was further argued that the "composite rating" of D1 provides no information concerning the opinion swing of network users whilst the invention according to claim 1, by contrast with D1, makes it possible to track opinion swings over time. This is not included as a technical feature in claim 1 (see the arguments set out in point 1.1, in relation to step c of claim 1). In particular, however, D1 (see paragraph [0226], lines 14-23) refers explicitly to the time-related tracking of opinion swings on the network by means of repeated searches for two search terms and comparison in a "contrast index" of the "emotional tone" of each. In the example in D1, the result shows that "Microsoft is gaining in popularity", which clearly relates to the comparison of the global attitude towards the Microsoft company on the Internet at two different points in time.

Further novelty-related arguments put forward by the applicant, in relation to the obtaining of the "composite ratings" in D1 from the ratings of hierarchically structured sub-units, are clearly not pertinent to the features of claim 1, step d. - which contains no details relating to the obtaining of the opinion variable; in consequence, said arguments, likewise, fail to support the claim.

Since claim 1 is not novel it is unnecessary to enter into discussion concerning an inventive step.

Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1.3   Dependent claims 2-11 contain no features which, combined with the features of any claim to which they refer, meet the PCT requirements for novelty and/or inventive step. The reasons are as follows:

Claim 2: storing and displaying lists of results are conventional features of Internet search machines and are implicit in D1 (see for example D1, paragraphs [0089] and [0226]). Said claim therefore lacks novelty.

Claim 3: with regard to periodic searches for tracking variations in the search results, see D1 (paragraph [0226], second half). If necessary, a person skilled in the art would combine D1 with document D2, in which the periodic search for tracking global opinion swings on the Internet is discussed in detail (see D2, page 26, line 9 to page 27, line 3; figures 2-7). An alarm mechanism for informing the user when search results meet certain conditions is widely known in the field and would be obvious to a person skilled in the art. Claim 3 is therefore not inventive.

Claim 4: claim 4 lacks novelty since it is anticipated by the "Information Dimension Dictionary" of D1 (see D1, paragraphs [0070], [0072] and [0087]).

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Claim 5: the dynamic generation of the "Information Dimension Dictionary" is described in D1 (see paragraphs [0093] to [0098]). Said claim therefore lacks novelty (see also paragraph 2.2).

Claim 6: the use of the standard referred to is conventional practice in Internet search engines, at least HTML being clearly implicit in D1. Said claim therefore lacks novelty.

Claims 7-9: the claims are not inventive since the matching of the representation of search results to user profiles or to properties of terminals used by the user and also the automatic matching of user profiles on the basis of the observation of the user behaviour is extremely widespread in the field of Internet search engines, being obvious to a person skilled in the art.

Claims 10 and 11: the problem addressed by the features of the claims is that of making it possible to evaluate historical values and to predict future values of the opinion variable. A person skilled in the art would have met this problem in the context of the method according to D1 since the tracking of swings in the opinion variable over time is a central concept in said document (see paragraph [0226], last six lines). If necessary, a person skilled in the art will

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also combine D1 with document D2, in which the periodic search for tracking global opinion swings on the Internet is discussed in detail (see D2, page 26, line 9 to page 27, line 3 and figures 2-7). For a person skilled in the art, the storing of historical values and the use of an extrapolation module for predicting future values would be obvious features for solving the problem of interest and, in consequence, claims 10 and 11 are not inventive.

1.4 **Device claims 12-22** and **computer program claims 23 and 24** contain technical features that correspond to the features of method claims 1-11. The arguments set out in points 1.1 and 1.3 above therefore apply *mutatis mutandis* in respect of claims 12-22 and 23-24.